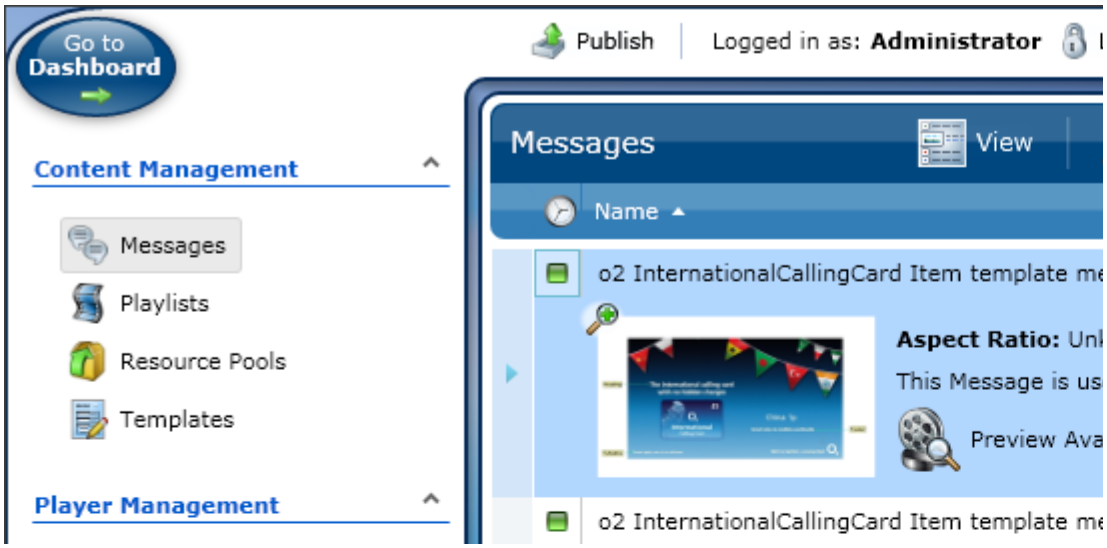
Installation Guide

Composer 5.4

Server Edition



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Introduction to Server Installer Guide

This document explains how to install the Composer Server Suite.

Configuring Composer Server is quite technical and should only be attempted by a qualified systems administrator.

Composer Server Suite can be installed on one or more machines as required. A typical scenario where you will need to use more than one machine occurs when Composer Server does not have an up-to-date graphics card (specifically one that supports Pixel Shader 2.0). If your machine does not support DirectX9 and Pixel Shader 2.0 you will need to install the Previewer on a separate machine on the network which has the required graphics capabilities. The Previewer installer will warn you if your graphics hardware is not adequate. Check the specifications of your graphics hardware on the manufacturer's website.

Note that the installer can also be used to update a Composer 4 or Composer 5 installation. It will migrate and update the Composer database so you will not lose any of your data.

The default Cassini webserver is suitable for testing the install however once this is complete you should transition to Microsoft's IIS webserver, following the instructions in this guide, as this has the advantage of greater scalability, better security and allows you to integrate Composer with an existing IIS infrastructure.

Note, If you want to use Composer Server with a SQL Server database on a different machine to the machine hosting Composer, you cannot use the default Cassini webserver and **must** configure Composer to use IIS instead. There are number of other extra steps that must be carried out which are described under the heading remote SQL server installation in this guide.

Upgrading from Composer 4

If upgrading from Composer 4 you must uninstall Composer 4 before proceeding.

Note, If you upgrade a Composer 4 installation containing user accounts with passwords containing foreign characters then these users will no longer be able to log in to Composer. The solution is either for an Administrator to reset the password for the affected users individually or if the administrator is unable to login to then contact AMX support. Ask AMX support for information on resetting passwords if unable to login when upgrading to Composer 5

Components of the Composer Server Suite

The Composer Server Suite contains the following components:

Composer Server Suite Components	
Component	**Description**
Composer Server	The core component which includes the main server application, and an SQL server database
Post Office	Post Office transfers messages and media data such as video and image files from the Composer application to Inspired Signage Players for display.
Previewer	This component is used to preview how a message will look on screen. The Previewer creates preview videos on behalf of Composer. The Previewer application must be installed on a machine which has a graphics card that supports DirectX9 and Pixel Shader 2.0
Babel Server (optional component)	Babel is an application which fetches data from different data sources such as databases or xml files and uses this data to create messages for display on Inspired Signage Players. Babel needs to communicate with Post Office and Composer

Composer Requirements

This section of the installation guide discusses the hardware and operating system requirements to run the Composer Server Suite. Composer Server is available in two different flavours depending on the license purchased, the two options are:

- 10 user license (allows a maximum of ten concurrent users)
- 50 user license (allows a maximum of fifty concurrent users)

The machine hosting the Composer Server application (The Composer Server PC) has different minimum hardware specification requirements depending on the license used. These requirements are detailed below:

Composer Server - 10 User License - Minimum Specification	
Component	**Requirement**
OS	Windows XP 32 bit
Memory	1GB
Processor	2 GHz Core Duo or equivalent
Hard Drive Space Available	Depends on the number of videos you plan to upload as each video you upload is copied to a media file directory . If you do not plan to upload and display videos then you will need a minimum of 5GB of disk space. If you plan to upload any videos then you will need 5GB + the combined size of all the videos you plan to upload.

Composer Server - 50 User License - Minimum Specification	
Component	**Requirement**
OS	Server 2008 32/64 bit
Memory	12GB
Processor	Intel E5540
Hard Drive Space Available	Depends on the number of videos you plan to upload as each video you upload is copied to a media file directory . If you do not plan to upload and display videos then you will need a minimum of 5GB of disk space. If you plan to upload any videos then you will need 5GB + the combined size of all the videos you plan to upload.

Composer Server - 10 User License - Preferred Specification	
Component	**Requirement**
OS	Server 2008 32/64 bit
Memory	4GB
Processor	Dual core 2.5 GHz
Hard Drive Space Available	20 GB

The machine hosting the Previewer application (which can be the same as the Composer Server) should have the following minimum specification:

Preview Machine Minimum Specification	
Component	**Requirement**
OS	XP 32 bit / Vista 32 bit / Windows 7 32 bit
Memory	512MB - note 1GB is preferable
Processor	Single Core 3GHz
Graphics	DirectX 9c compliant with hardware support for pixel and vertex shaders (Pixelshader 2.0).

Note, the preview performance is primarily affected by the speed of your network and the speed of the processor on the preview machine rather than the Preview machine's graphics card.

The preferred specification is as follows:

Preview Machine Recommended Specification	
Component	**Requirement**
OS	XP 32 bit / Vista 32 bit / Windows 7 32 bit
Memory	1GB
Processor	Dual core 2.13GHz with 2MB cache
Graphics	DirectX 9c compliant with hardware support for pixel and vertex shaders (Pixelshader 2.0).

Client PC Requirements

There are certain software and hardware requirements for a client PC to work with the server version of Composer. These requirements are listed below.

Software Requirements

The software requirements to use Composer are as follows:

- A supported web browser. The following table lists the operating systems/hardware platform and web browsers supported, as taken from Microsoft's web site:
- The Silverlight 4.0 plugin for your web browser - you will be prompted to install Silverlight when you first access the Composer Server web page.

Supported Web Browsers by Operating System			
Operating System	**Internet Explorer 7+**	**Firefox 3+**	**Safari**
Windows Vista, Windows Server 2008, Windows 7 (beta)	Yes	Yes	-
Windows XP SP2	Yes	Yes	-
Windows 2000 SP4 + all post-SP4 hotfixes, updates, and security updates	-	-	-
Windows Server 2003 (excluding IA-64)	Yes	Yes	-
Mac OS 10.4.8+ (PowerPC)	-	Yes*	Yes
Mac OS 10.4.8+ (Intel-based)	-	Yes	Yes
Linux	-	Yes	-

Hardware Requirements

The minimum client hardware requirements are shown in the table below:

Minimum Hardware Requirements for a Client PC	
Components	**Requirement**
Personal Computer running Windows	x86 or x64 500-megahertz (MHz) or higher processor with 128-megabytes (MB) of RAM
Mac OS 10.4.8+ (PowerPC)	PowerPC G4 800-MHz or higher processor with 128-MB of RAM
Mac OS 10.4.8+ (Intel-based)	Intel Core Duo 1.83-gigahertz (GHz) or higher processor with 128-MB of RAM

Prerequisites

Before installing Composer Server Suite you need to ensure that all the machines you are using have up-to-date software. Go to http://update.microsoft.com and click *Express* to install the high priority updates.

You will also need to disable your anti-virus software. Re-enable it once installation is complete.

Next, you must ensure that you have installed the following:

- Silverlight version 4.0 or higher on any client PCs and the PC hosting Composer Server.
  http://www.silverlight.net/downloads
- Microsoft Installer version 4.5 or higher on all PCs hosting the Composer Server Suite. Note this is preinstalled on Windows 7.
  http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=8483
- .NET version 4 or higher on all PCs hosting the Composer Server Suite. You can install this component at the same time as installing SQL Server Express 2008 using the Microsoft Web Platform Installer, see the next section of this guide for details.
  http://www.microsoft.com/net
- Microsoft SQL Server Express 2005 or higher. Note, SQL Server Express 2008 is preferred. The next section of the installation guide describes how to install SQL Server Express 2008.
- WS-Management 1.1 or higher on the machine hosting SQL Server 2008/2005.Note this is preinstalled on Windows 7.
  http://www.microsoft.com/download/en/details.aspx?id=21900
- Windows Powershell 1.0 or higher on the machine hosting SQL Server 2008/2005. Note this is preinstalled on Windows 7.
  http://blogs.msdn.com/b/powershell/archive/2008/12/30/download-windows-powershell.aspx
  You can install this component at the same time as installing SQL Server Express 2008 using the Microsoft Web Platform Installer, see the next section of this guide for details.
- You need to install Quicktime and the MPEG 2 codec on the machine hosting the Preview application along with any other video codecs you wish to use otherwise the preview feature will not work with files of these types. Note that the Microsoft DTV-DVD Video Decoder provided in Windows Vista and Windows 7, supports MPEG-2 Playback.

Installing SQL Server 2008 Express

This section explains how to install SQL Server 2008 Express for use with Composer.

Note that you do not need to install SQL Server 2008 Express if you already have an SQL Server 2005 or 2008 installation. Note also that you must install a 64 bit version of SQL Server if you have a 64 bit operating system.

Installing SQL Server Express using the Web Platform Installer

This subsection explains how to Install SQL Server Express 2008 and any other Composer pre-requisites using the Microsoft Web Platform Installer.

Note that Microsoft may change the web platform installer and its user interface so the exact process may differ slightly from the explanation below. The current steps are as follows:

1. Go to the Microsoft Website **http://www.microsoft.com/web/downloads/platform.aspx** and click the **Download it now** button to download the web platform installer. Run the installer once the download finish.
2. When the Web Platform Installer starts, click **Products** in the bar at the top of the screen
3. Click **All** in the left hand panel
4. Search for and add the following products: .Net Framework 4 or later , Powershell 2.0 or later, SQL Server Express 2008, and SQL Server 2008 R2 Management Studio Express. Note some of these items may not be present in the list if they have already been installed; some items are installed by default on some versions of Windows.
5. Search for and add Internet Information Services (IIS) if you want to install the IIS Webserver. Composer needs a webserver to function, IIS offers greater scalability and security than the default webserver. However, IIS does require manual configuration.

   Note IIS may not appear in the list of products if it is already installed. IIS is installed by default on some versions of Windows.
6. Once you selected all the products, click **Install**
7. When asked to select the authentication mode, select Windows Integrated Authentication and click **Continue** to start the installation. You may be warned of compatibility issues at the start of the installation, If this happens, you should use Windows Update to download and install any updates for SQL Server Express *after the installation has finished.*

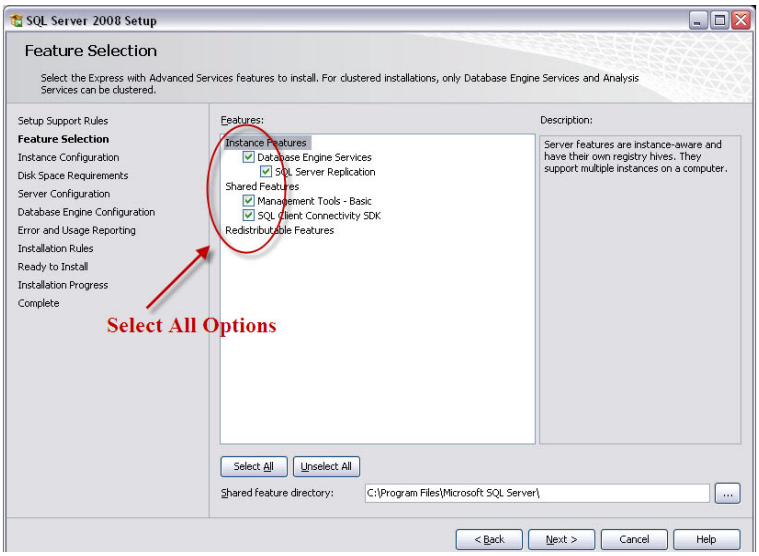
When SQL Server installer starts you are presented with a number of options, proceeds as follows:

1. Select the **Installation** page in the left menu, then select **New SQL Server stand alone install** to start the installation:

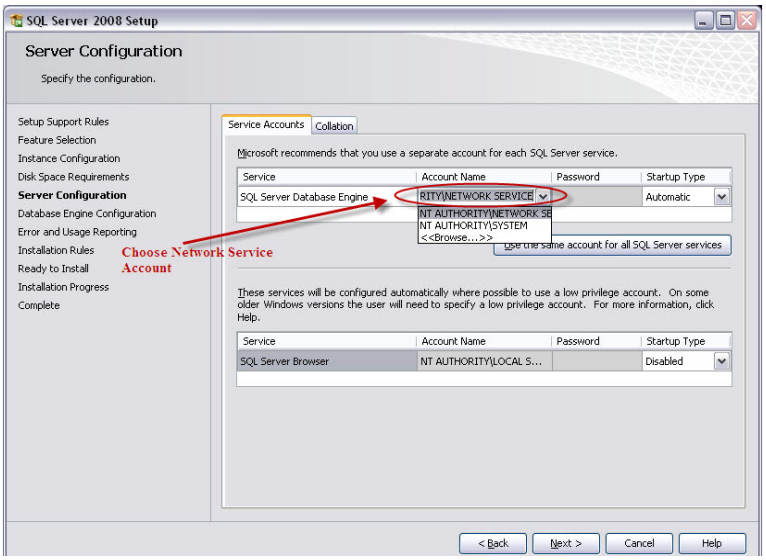
SQL Server Installation Center
2. Next, select New SQL Server stand-alone install
Planning
Installation
Maintenance
Tools
Resources
Advanced
Options
1. Select Installation
New SQL Server stand-alone installation or add features to an existing installation
Launch a wizard to install SQL Server 2008 in a non-clustered environment or to add features to an existing SQL Server 2008 instance.
New SQL Server failover cluster installation
Launch a wizard to install a single-node SQL Server 2008 failover cluster.
Add node to a SQL Server failover cluster
Launch a wizard to add a node to an existing SQL Server 2008 failover cluster.
Upgrade from SQL Server 2000 or SQL Server 2005
Launch a wizard to upgrade SQL Server 2000 or SQL Server 2005 to SQL Server 2008. Before you upgrade, you should run the Upgrade Advisor to detect potential problems.
Search for product updates
Search Microsoft Update for SQL Server 2008 product updates.
SQL Server 2008

2. Select the **default settings** in all pages except the **Feature Selection**, **Server Configuration**, and **Database Engine Configuration** pages. See below for more details.

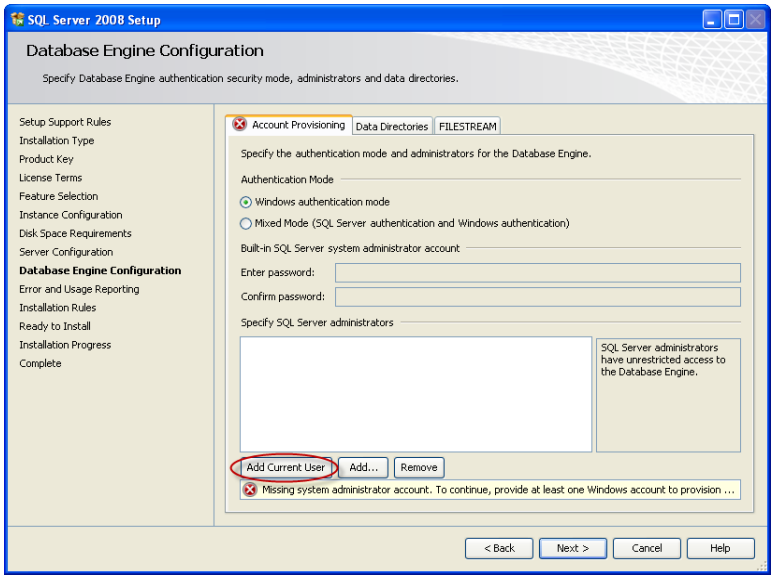
   In the **Feature Selection** page select all available options:



6. In the **Server Configuration** page select the Network Service account for the SQL Server Database Engine. Click the drop down menu under **Account Name** and select **NETWORK SERVICE**:



7. In the **Database Engine Configuration** page select **Add Current User**



Using a remote SQL Server database with Composer

If you plan to use Composer with a remote SQL Server database (if the SQL Server database is on another machine to Composer) then you must copy two databases and their log files onto the remote machine hosting SQL Server and attach these databases in SQL Server. The process is as follows:

1. Locate the folder Databases in the Composer zip file you downloaded from the AMX website.
2. Copy all the files in this folder to a folder ComposerDatabases on the machine hosting SQL Server
3. Select the files in the Composer Database and ensure that they are not set to be read only.
4. Go back to SQL Server Management Console
5. Right click on Databases
6. Select Attach from the drop down menu
7. Click *Add* and navigate to the ComposerDatabases directory, select the file AMXComposerDatabase.mdf
8. Click *Add* again and select PostOfficeServerDB.mdf from the same directory
9. Click *OK* to attach these databases

Next, create a SQL Server database login corresponding to the Windows user account you plan to install and run Composer under. Check that the machine hosting SQL Server and the machine that will host Composer can access each other over the network. Login to the remote SQL Server database using SQL Server Management Console and proceed as follows:

1. Connect to the appropriate database using the datatabase server name and instance name in the format **<Server Name>\<Instance Name>**
2. Expand Security
3. Right-click on Logins and select *Create Login*
4. Check Windows authentication is set
5. Click the *Search* button
6. Click *Location*
7. Enter the windows user Composer will run under in the field underneath Location in the format **domain name\username**
8. Click *Check Names* to find this user
9. Click *OK* to continue
10. Check the default database drop down is set to AMXComposer
11. Select the Server Roles page in the left hand pane
12. Set the dbcreator role, all other roles should be cleared.
13. Select the User Mapping pane
14. Check the AMXComposerDatabase and PostOfficeServer databases are mapped to this login
15. Select AMXComposerDatabase and give the user the roles: db_datareader, db_datawriter,db_ddladmin, and public
16. Select the PostOfficeServer database and give the user the roles db_datareader, db_datawriter, and public
17. Click *OK* to finish creating the login

Installation Process

Technical Note - SQL Server Database

Composer stores it's application data and settings in a SQL Server database. Composer uses a database connection string to connect to the database. Rather than use a model where you have to provide login information, a better security model is to use integrated security (using windows authentication) instead of putting SQL server usernames and passwords in the connection string. With this in mind, all the Composer connections strings discussed in this installation section work with windows authentication.

Installation Process

Note - When upgrading from release 4.2 of Composer you must first uninstall AMX Inspired Signage Post Office.

To install Composer Server proceed as follows:

1. Locate the file Setup_Composer_Server.exe obtained as part of the zip file containing the Composer application at the AMX website. See : **http://www.amx.com-/techcenter/downloadConfirm.asp?fn=/assets/applicationFiles/Composer_Server_v5.4.zip**.
2. On Vista or Windows 7, right click this file and select *Run as Administrator*

   On Windows XP, double click this file.
3. Click *Next* to start the installation
4. Accept the AMX license agreement.
5. Click *Next* to open the Installation Options screen
6. The steps to follow in this screen depend on whether you are a standard or advanced user.

   Standard Users that is to say users with SQL Server installed on this machine, proceed as follows:

   a. Click *Install*

   Advanced Users that is to stay users with the full version of SQL Server 2008 or with SQL Server installed on a remote machine proceed as follows:

   a. Enter a value for the Composer Web Service Port or accept the default value (recommended).
   b. Enter the Composer database connection string, see the section **Database Connection String** below for details.
   c. Enter values for the Post Office Web App and Web Service Ports or accept the default values (recommended). The Web App Port is the port used for the html pages that allow you to monitor the Post Office status. The Web Service Port is the port used by the Composer component to send data to the Post Office.
   d. Enter the Post Office database connection string (Note that this is typically the same data source as Composer)
   e. Click *Install*

Database Connection String

A database connection string is used to connect to the SQL Server database. Part of the connection string is of the form Data Source=Servername\instanceName (By default this is set to localhost\SQLEXPRESS which points to the default instance of SQL Server Express 2008 on the local machine)

If you have SQL Server 2008 or the database is located on a another (remote) machine then you will need to change the data source part of the connection name to **server name\instance name**. You can find the instance name by running the SQL Server Management Console on the machine.

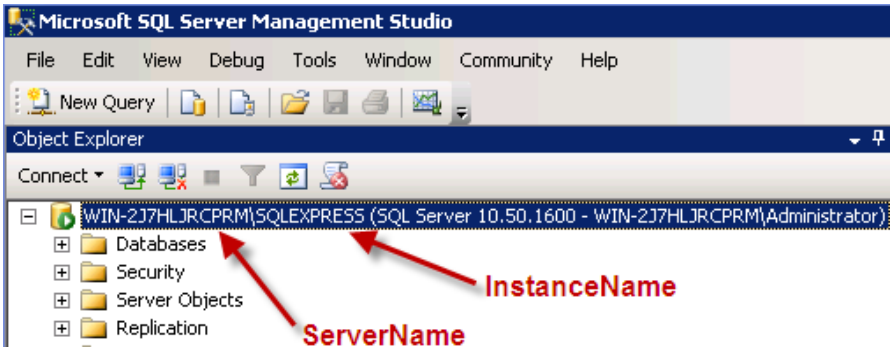


FIG.1 Finding the ServerName\InstanceName for your SQL Server database

** **Warning** ** you may not have an instance name depending on how your database was set up. In this case just provide the Server name on its own with no trailing \

If you need to change the database connection strings at any time they can be found in the file C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web\Web.config. Search for the text connectionStrings

7. Once the installation completes you must launch the AMX License Manager to license your installation. You can also, optionally, launch the Configure Authentication application to use Composer with a directory service such as Active Directory. These steps are discussed in detail overleaf.

Post Installation

Once you have installed all the components of the Composer Server Suite you need to carry out the following post installation tasks:

1. Install the AMX license manager and obtain a license for this installation of Composer.
2. Optional - If you plan to use Composer with a external directory service provider such as active directory then you need to launch the Configure Authentication application.
3. Optional - if you have installed the preview application on another machine then you need to modify the IP address of the Preview machine in the Composer webserver configuration file and set the preview machine to auto-login.
4. login to Composer.
5. Optional - Configure Composer Server to work with IIS.

See below for details.

Licensing

To use your Composer Installation you must first license it using the AMX License Manager. The AMX License Manager is used to install and manage software licenses for Composer (as well as other AMX software applications on your local machine. The local license manager communicates with a license server application which can be based on the local machine or elsewhere on the network.

Run the License Manager as follows, select **Start > Program Files > AMX Inspired Signage > AMX License Manager**, this starts the License Manager. Once the License manager launches you are shown the welcome page which lists the AMX Software you have installed. Select the product you want to license and click *Next* to proceed to the Select License Server dialog where you can either specify a current license server on your network or install one locally.

Select License Server

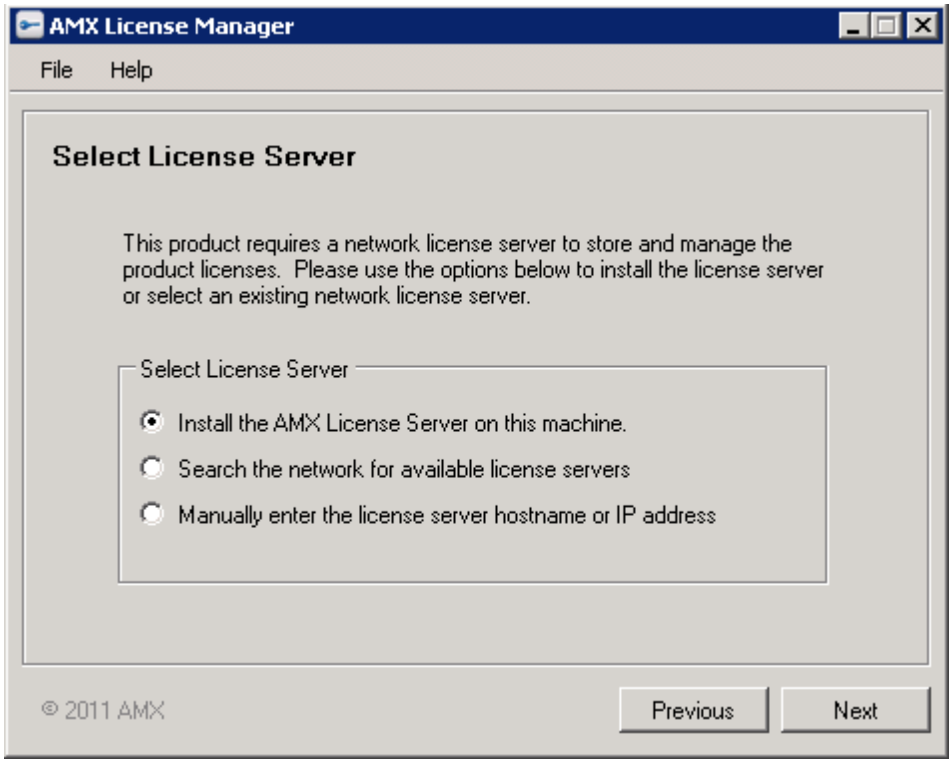
Use the options in this dialog to install the AMX License Server application on this machine, or select an existing network license server.

Note

You can only have one instance of Composer per AMX license server otherwise you risk problems with license contention. For each instance of Composer you will need an AMX license server

Choose one of the Select License Server options:

- Install the AMX License Server on this machine - This is the default option.
- Search the network for available license servers - Use this option if the AMX License Server application is already installed on your network, for example if you have other AMX products.
- Manually enter the license server hostname or IP address - Use this option if AMX License Server is on the network and you know the hostname or IP address or are having problems using the previous option.


AMX License Manager
File
Help
Select License Server
This product requires a network license server to store and manage the product licenses. Please use the options below to install the license server or select an existing network license server.
Select License Server
Install the AMX License Server on this machine.
Search the network for available license servers
Manually enter the license server hostname or IP address
© 2011 AMX
Previous
Next

If the AMX License Server application has not previously been installed on this server, then the first option (selected by default) is to install the AMX License Server on this machine

Note that once the AMX License Server application has been installed locally the first option in the Select License Server dialog changes to "Use the local license server installed and running on this machine".

Search the Network for License Servers

Proceed as follows:

1. With this option selected, click *Next* to proceed to the Select License Server dialog. This dialog provides a listing of all AMX License Servers detected on the LAN
2. Select the desired AMX License Server and click *Next* to proceed to the Select Licensing Option dialog
3. If your server does not appear in the list, click *Refresh.*. If after refreshing the server list, you still do not see your server, click on the link **My License server was not listed, let me specify the license server path** and enter the hostname or IP address of the license server manually.

Licensing Option Dialog

Proceed as follows:

1. Select the product you want to license, in this case Composer and click *Next* to open the Licensing Status window. This page show what licenses if any you have installed for the selected product and details the number of users permitted in the Qnty column and the License Version and Status
2. Click *Click here to continue* to proceed to the Licensing Options Menu. The options are as follows:
    - **Request a trial/evaluation license** - Select this option if you want to request a free 30-day Trial License. See the Request a Trial/Evaluation License (below) for details.
    - **Register License By Entitlement ID** - Select this option if you are installing a new license

- **View Existing Licenses** - view existing software licenses for this product

These options are discussed in more detail below.

Request a Trial License (Option A)

This option requires that you have Internet access (in order to contact the AMX Licensing Server)

1. Click the *Request a trial/evaluation license* option in the Licensing options menu to request a trial license for Composer
2. Click *Next* to proceed to the Contact Information window, enter your information. Note you will not be able to proceed until you have filled in all the fields.

   Note If you already have an AMX.COM account, click on Lookup Account to provide your credentials (email address and password) to automatically populate the contact information for this license based on your existing AMX account information.
3. Click *Next* to proceed to the Customer Information window. Select your industry sector from the drop-down menu.
4. click *Next* to contact the AMX Licensing Server to obtain a trial license.
5. Once the trial license has been obtained, it is automatically activated
6. You will now be prompted to Restart Composer as the license has been modified, choose from one of the following options:
   - **Restart the default AMX Web Server** - use this option if you have not changed Composer to run under IIS. (Default Option for Desktop/Server installations of Composer)
   - **Restart IIS** - use this option if Composer has been configured to run under IIS. (Server version of Composer only)
   - **Manual Restart** - use this option if you want to restart the web service manually using the Microsoft Management Console.

Register License By Entitlement ID (Option B - Install a Permanent Software License)

This option requires that you have a valid Composer Entitlement ID, effectively a License key, (obtained from AMX).

1. In the Licensing Options Menu click *Register License by Entitlement ID*
2. This selection opens the Contact Information window, enter your contact information.

   Note If you already have an amx.com account, click on Lookup Account to provide your credentials (email address and password) to automatically populate the contact information for this license based on your existing AMX account information.
3. Click *Next* to proceed to the Customer Information window. Select your industry sector from the drop-down menu.
4. Click *Next* to proceed to the Install New AMX Product License window
5. Enter your Entitlement ID in the text field provided. Entitlement IDs begin with the prefix "ENT-"
6. Click *Next* to prompt the License Manager to contact the AMX Licensing Server and activate the license associated with the provided Entitlement ID.

   Note An error message will be displayed if the entitlement has already been registered to another system or if the entitlement ID is invalid. Please contact AMX customer service if you encounter any difficulties obtaining your product license.

   The License Activated window indicates that the license was successfully activated

   Click *Next* to return to the Licensing Options Menu window

Note If this server has previously had a trial license registered by Entitlement ID, the trial license will no longer be listed in the Installed Product Licenses dialog. Once a license is registered, only valid registered licenses are displayed. See View Existing Licenses below.

7. You will now be prompted to Restart Composer as the license has been modified, choose from one of the following options:
    - **Restart the default AMX Web Server** - use this option if you have not changed Composer to run under IIS
    - **Restart IIS** - use this option if Composer has been configured to run under IIS.
    - **Manual Restart** - use this option if you want to restart the web service manually using the Microsoftt Management Console.

Configuring Previewer on a Separate Machine

If the Composer Server does not have a graphics card which supports Direct X9 or later and Pixelshader 2.0 then you need to install the Preview application on a separate machine (the Preview machine) which does have these capabilities. You may need to do this to improve the performance of Composer as the number of users increases.

Install the Preview application on the Preview machine by running the file Setup_Previewer located in the Remote Preview folder inside the Composer zip file (note if you are installing on Vista or higher, you will need to right click on the file and choose run as administrator).

Install the FTP service for the preview application by running the file Setup_FTP_Service located in the Remote Preview folder inside the Composer zip file (note if you are installing on Vista or higher, you will need to right click on the file and choose run as administrator).

Find or change the port that the Preview application uses to communicate with Composer Server as follows:

Open the file Previewer.exe.config in C:\Program Files\AMX\Inspired Signage\Previewer\Default, search for the entry PreviewerPort in this file and note the number. You can modify this if you want to use a different port.

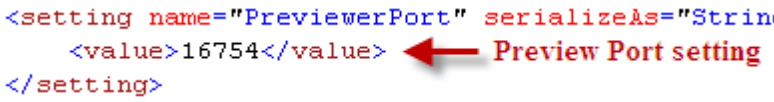


FIG.3 Preview port setting in Preview configuration file

Next, you need to modify the configuration file Web.config on the machine which hosts the Composer Server. The path for this file is C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web\Web.config

Open this file in Notepad or a similar application and search for the text PreviewIP to find this entry in the XML configuration file. Modify the value element to the IP address of the Preview machine (this machine must have a fixed IP address), if necessary alter the PreviewPort setting to match the setting in the Pre-view.exe.config file on the Preview machine.

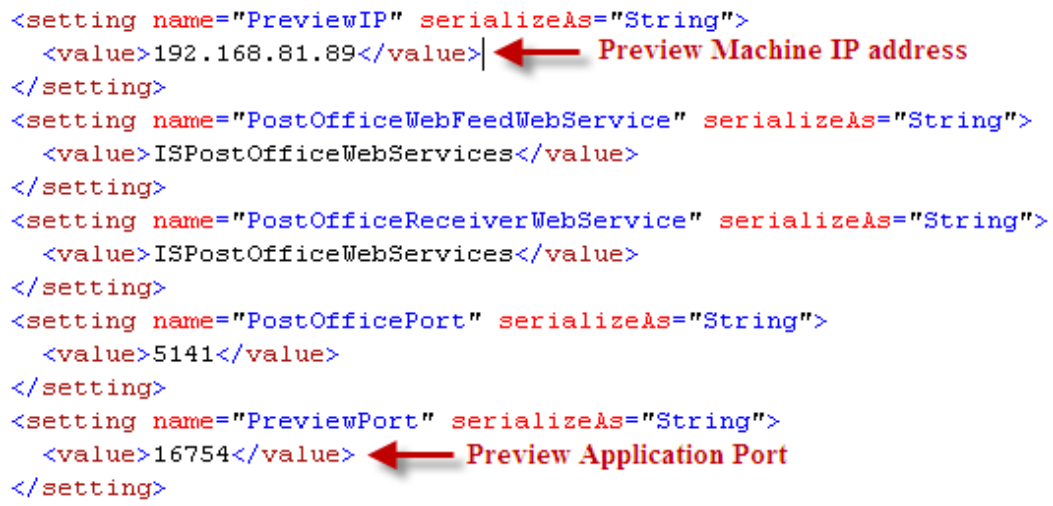


FIG.4 Preview Configuration Section of Webconfig File

Check the Preview machine firewall settings, the FTP port (21) and Preview port need to be opened. The process is as follows on Windows XP (**Note**, you may need to follow a slightly different process on other Windows Operating Systems - google the process for opening firewall ports on your version of Windows for more information):

1. Click Start > Run
2. Type `firewall.cpl` in the Run box
3. Select the Exceptions Tab
4. Click *Add port* and enter the port name (FTP or Preview) and the relevant port number. Repeat this procedure for both of these ports.

Now you need to configure the Preview machine to autologin. this procedure will differ depending on the version of the Windows OS installed on the Preview machine.

How to auto-login in Windows Vista, Windows 7, and Windows Server:

1. Go to START
2. Type `netplwiz` in the search box.
3. select the user from which you want to login automatically and clear the box which says "Users must enter a username and password to use this computer". Note, if there is no box then you need to make changes to the registry to re-enable this feature. See the following link http://www.tek-tips.com/viewthread.cfm?qid=1431940&page=8 or google the following "Users must enter a username and password to use this computer missing"
4. enter the password of the account in the box.
5. Click *OK* to continue.

How to auto-login in Windows XP :

1. Click Start > Run
2. in the Run box, type control userpasswords2.
3. Follow steps 3, 4, & 5 of the Vista procedure above.

Finally, restart Composer by either restarting IIS (if using ISS) or by restarting the amx web server. Composer will then detect that remote preview is being used and FTP all the imported TPKs to the remote machine. This process may take a few minutes depending on the number of TPKs. Previews will not work until this process is complete

Directory Integration

This section describes how to configure Composer to use an external directory provider. This external directory provider authenticates Users and determines what Composer User Groups these Users should belong to.

Note this section assumes an understanding of Directory Services and should be carried out by an system administrator.

By default Composer itself manages authentication and User Groups, to change this proceed as follows:

1. Select Start or click the Windows icon depending on your version of Windows
2. Select All Programs > AMX Inspired Signage > Configure Authentication to run the tool
3. Set the checkbox **Configure Composer to use external directory provider** to enable this feature
4. In the **name** field, enter the name that will be used to identify this directory in the directory drop down in the login dialogue window for Composer
5. In the **address** field, enter the hostname or IP of the server that hosts the external directory server e.g. directoryserver.amx.com or 192.168.80.7.
6. In the **domain name** field, enter the Microsoft domain to which the directory belongs. This is not necessary if using Lightweight Directory Services (see Active Directory Type below).
7. in the **Base User Path** field, enter the **Distinguished Name** of a container object (within the directory) which contains the users that are permitted to log in e.g. OU=Staff Users,OU=ISUsers,OU=Inspired Signage,DC=amx,DC=local. It is possible to select the root node of the directory but the larger the user community that has to be searched, the longer it will take to log in so this feature has both security and usability implications.
8. Set the **Active Directory Type** checkbox if your organization is using Active Directory Lightweight Directory Services
9. If the local security policy has been set up to deny users access to data about themselves, it may be necessary to enter the authentication details in the **Bind Username and Password field** to access the directory as another user with greater privileges. Enter the username in the left hand field and the password in the right hand field the password. **Note**, the password is obscured on entry and encrypted when copied into the Composer configuration file.
10. Use the **Password Security Transfer** drop down to select whether passwords are encrypted before being sent between Composer and the Directory Server or not. Three options are available, choose the option appropriate for your organization's setup:
    - Send password Securely with Kerberos
    - Simple bind (not secure)
    - Simple bind using SSL (Secure Sockets Layer)
11. Click *Save* to save the changes, a window appears explaining that you need to restart the Composer web service. Select one of the options

- **Restart the default AMX Web Server** - use this option if you have not changed the web server
- **Restart IIS** - use this option if you have configured Composer to run under the IIS web server
- **Manual restart** - use this option if you want to restart the web server manually

12. Click *Save* to proceed
13. When you login to Composer you will now have a drop down which you use to select the appropriate directory to verify the user credentials you enter.

If you decide you want to manually add some users to Composer then you will need to re-run this tool and clear the **Configure Composer to use external directory provider**checkbox . Manually added users can be assigned to User Groups which are later mapped to Directory Groups. The manually assigned users will not be lost.

Login to Composer

Note you cannot login to Composer unless you have completed the licensing process for this installation.

Point a web browser to http://<hostname>:<port>/ComposerWeb/ComposerShell.aspx.

Where hostname is the IP address or network name for the Composer Server and port is the port used by the server (5143 by default).

At this stage you may be prompted to install the Silverlight browser plugin from Microsoft (this is not needed when you login subsequently). Once this is complete you will see the following progress screen as the Composer application loads:

FIG.5 Progress Screen for First Login

When all the Composer modules have been installed, a login screen appears as follows:

FIG.6 Login Screen

Note if you have configured composer to use an external directory then there will be an extra field, the Directory drop down menu.

Login to Composer as follows:

1. Enter the default username and password: username = administrator, password = administrator.
2. If you have configured Composer to use an external directory provider then you will see an extra field, a menu called directory. Select the directory containing the account you want to access using the drop down. Alternatively, if you want to login using the administrator account or any manually created local account, select **Local Composer Users**
3. Click **Login**

You should now be able to access Composer.

WARNING: Your first task will be to change the default password. You must change the password to avoid compromising security. See the Composer help files for details.

Using IIS with Composer Server

This section describes how to setup Composer Server to work with IIS rather than the default AMX webserver. This process should only be attempted by experienced systems administrators as each step must be carried out correctly to avoid problems.

Why use IIS? IIS offers greater scalability and security than the default Webserver, however it does require manual configuration which we describe below. Note, that you must use IIS if you want to use Composer with an SQL Server database hosted on another machine (a remote SQL Server installation).

Important: The following example installation procedures show how Composer Server may be used with IIS 6 and 7. These examples make clear which features need to be configured but we make no claims about the security, efficiency, or general suitability of the resulting installation for any specific use. A qualified system administrator should be employed to ensure the best configuration for your network.

Process Outline

The basic process for using IIS to host Composer is as follows:

1. Point IIS to three directories (The IIS user group must have access to these directories):

   The Composer web application lives in the following directory:

   - C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web

   The Post Office web application lives in the following directories:

   - C:\Program Files\AMX\Inspired Signage\Composer Server\Default\PostOffice\WebApp
   - C:\Program Files\AMX\Inspired Signage\Composer Server\Default\PostOffice\WebService
2. Disable the "AMX webserver". Go to **Control Panel > Administrative Tools > Services** , select AMX Web Server-Default and click *Stop the Service*
3. Now you need to disable the service. Right click AMX Web Server-Default and select properties. Select Disabled from the Startup Properties drop down.
4. Restart IIS

We describe the process to use with IIS 6 on Windows Server 2003 followed by IIS 7 on Windows Server 2008

Process for IIS V6.0 and Windows Server 2003

Install IIS

Install IIS (if not present) as follows:

1. Go to **control panel > programs and features > add/remove windows components**
2. click *Application Server*
3. click the checkbox beside IIS
4. Click *OK* to install IIS

Register IIS

Register IIS as follows:

1. Ensure that you have installed Microsoft .NET 4 or whatever is the latest version, then
2. Run the following command from the command line: ASPNET_REGIIS.EXE -i located in C:\W-INDOWS\Microsoft.NET\Framework\v4.0.30319 (note you will need to modify the v4.0.30319 part to correspond to the version of .NET you have installed)

Shutdown the AMX Webserver

Now, shutdown the AMX Web server:

1. Select Start > Run and enter **services.msc** to bring up a list of all windows services
2. Select AMX Web Server-Default and click **Stop the Service**
3. Now you need to disable the service. Right click AMX Web Server-Default and select properties. Select Disabled from the Startup Properties drop down.

IIS Setup

Open Internet Information Services (IIS) Manager, select **Start > Run** and enter **inetmgr**

Create Application Pools

Create two application pools, Composer Application Pool and Post Office Application Pool, as follows:

1. Right click on Applications Pools
2. Select **New > Application Pool**
3. Use the default settings for these application pools

   Note, if you plan to use a remote SQL Server database carry out the following extra steps:
4. Right-click the application pool and select Properties from the context menu.
5. In the Properties dialog box, select the Identity tab.
6. Set the configurable checkbox
7. Enter the username of the account used to install Composer in the format **domain name\username**. Enter the account password

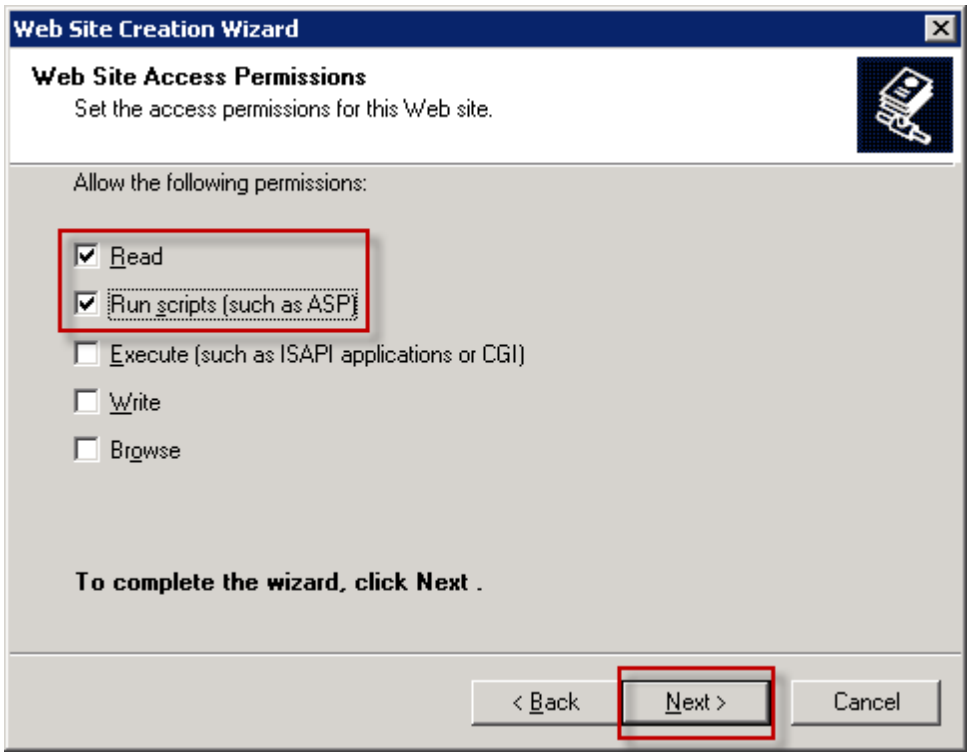
Enable ASP.Net Web Service extension:

1. Select the Web Service Extension folder
2. Select ASP.NET v4.0.30319 (or later version as appropriate)
3. Click *Allow*, a green tick should appear over the icon to the left of the text and the status column will change to allowed

Create Websites

Next create a Website for the Composer component as follows:

1. Right click on Websites
2. Select **New > Website**
3. Enter Composer
4. Choose a Port Number for the Composer website (choose 8080 by default) make a note of the Port for future reference.
5. Select the Website path, choose C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web
6. Set the Website Access Permissions to read and run scripts



Create a website for the Post Office component as follows:

1. Right click on Websites and select **New > Website**
2. Enter the text **Post Office**
3. Choose a Port Number for the Post Office Website (choose 8090 by default) make a note of the Port for future reference.
4. Select the Website path, choose C:\Program Files\AMX\Inspired Signage\Composer Server\D-efault\PostOffice
5. Set the Website Access Permissions to allow read access as well as the ability to run scripts.

Setup Mime Types

Set the mime types recognized by the webserver:

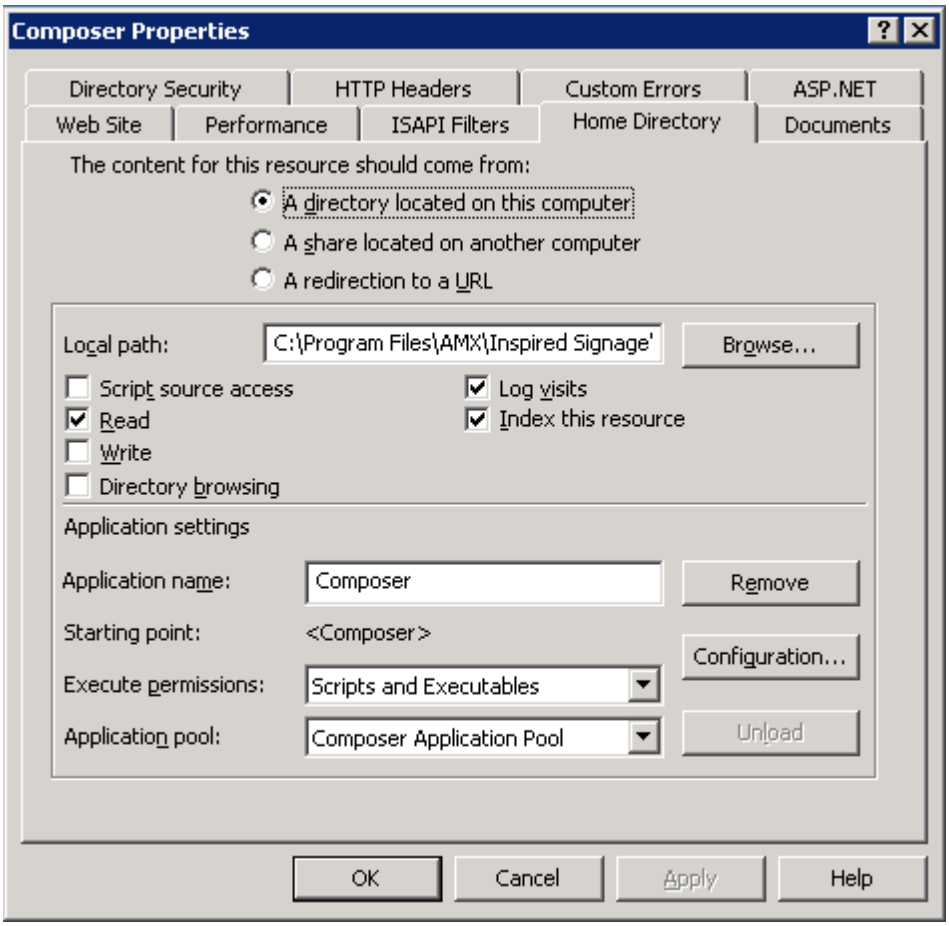
1. Right click on the local computer underneath the Internet Information Services icon in the left hand pane of the IIS Management
2. Select Properties and then click *Mime Types*
3. Click *New* and enter the extension and mime type details as shown in the table, repeat for each row in the table:

Extension	Mime Type
.xap	application/x-silverlight-app
.xaml	application/xaml+xml
.xbap	application/x-ms-xbap

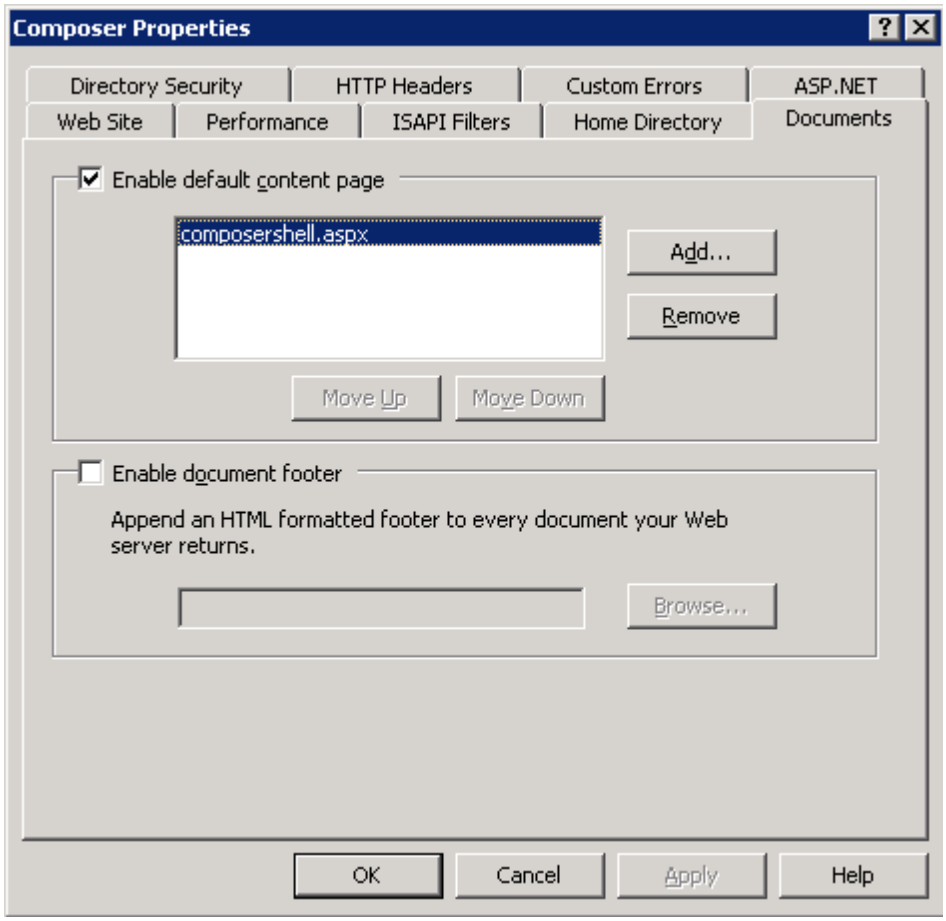
Change the Composer Website Properties

1. Right click on the Composer Website and select Properties
2. Select the Website tab and disable logging
3. Select the Home Directory tab and carry out the following in this tab:
    a. Change the Execute Permissions to Scripts and Executables.
    b. Change the Application Pool to the Composer Application Pool

c. Enter Composer as the Application name



4. Select the ASP.NET tab and change the ASP.NET version to ASP.NET version 4.0 or the latest version installed on this computer.
5. Select the Documents tab, remove all the initial pages, and then add the page **composershell.aspx**



Change the Post Office Website Properties

1. Right click on the Post Office website and select Properties
2. Select the Website tab in the Properties dialog and disable logging
3. Select the Home Directory tab and carry out the following in this tab:
    a. Change the Execute Permissions to Scripts and Executables
    b. Change the Application Pool to the Post Office Application Pool
    c. Enter Post Office as the Application Name
4. Select the ASP.NET tab and change the ASP.NET version to ASP.NET version 4.0 or whatever is the latest installed version.

Setting up the Post Office Web Application

Post Office as well as Composer needs to be exposed by IIS by adding two virtual directories under the Post Office website (created earlier):

- ISPostOfficeMonitorWebApplication (path C:\Program Files\AMX\Inspired Signage\Composer Server\Default\PostOffice\WebApp)
- ISPostOfficeWebServices (path C:\Program Files\AMX\Inspired Signage\Composer Server\D-efault\PostOffice\WebService)

Create a virtual directory as follows:

1. Right click on the Post Office website and select new virtual directory
2. Enter a name (alias) for the virtual directory in this case ISPostOfficeMonitorWebApplication
3. Select a path for the virtual directory in this case C:\Program Files\AMX\Inspired Signage\Composer Server\Default\PostOffice\WebApp
4. Set the permissions for the virtual directory (allow read access and run scripts)
5. Click *Finish* to create the virtual directory
6. Right click on the newly created virtual directory and select Properties
7. Change the Application Pool to the Post Office Application Pool
8. Change the Execute Permissions to Scripts and Executables
9. Select the ASP.NET tab and change the ASP.NET version to ASP.NET version 4.0 or whatever is the latest installed version.

Create a second virtual directory as follows:

1. Right click on the Post Office website and select new virtual directory
2. Enter a name (alias) for the virtual directory in this case ISPostOfficeWebServices
3. Select a path for the virtual directory in this case C:\Program Files\AMX\Inspired Signage\Composer Server\Default\PostOffice\WebService
4. Set the permissions for the virtual directory (allow read access and run scripts)
5. Click *Finish* to create the virtual directory
6. Right click on the newly created virtual directory and select Properties
7. Change the Application Pool to the Post Office Application Pool
8. Change the Execute Permissions to Scripts and Executables
9. Select the ASP.NET tab and change the ASP.NET to ASP.NET version 4.0 or whatever is the latest installed version.

Modify the Web Config File Post Office Port

Locate the Web.Config file in C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web and Search for PostOfficePort in this file.

The relevant section should be as follows:

<setting name="PostOfficePort" serializeAs="String">

<value>5141</value>

</setting>

Change the value from 5141 to 8090 or whatever port you used to setup the Post Office.

Configure Post Office to work with a Remote Database

Configure Post Office to work with a remote database as follows:

1. Select **Start > Run** and enter services.msc
2. Select AMX IS Post Office Worker Service-Default
3. Stop this service
4. Right-click and select Properties on this service
5. Choose Log On
6. Enter the username of the account used to install Composer in the format domain name\username
7. Enter the account password
8. Start the AMX IS Post Office Worker Service-Default service

Restart IIS

Right click on the local computer underneath the Internet Information Services icon in the left hand pane of the IIS Management and select **All Tasks > Restart IIS**

Test the Setup

To check Composer is setup correctly enter the following in a web browser: http://(machine name):8080

If Composer is correctly setup then a Composer login will appear. If there is a problem check each step of the IIS configuration, paying particular attention to the Composer sections.

To open the Post Office web application page use the following urls:

http://(machine name):8090/ ISPostOfficeMonitorWebApplication/Manager.aspx and

http://(machine name):8090/ ISPostOfficeMonitorWebApplication/Viewer.aspx

Check that you can access both of these URLs correctly, if there is a problem check each step of the IIS configuration, paying particular attention to the Post Office sections.

Process for IIS V7.0 and Windows Server 2008

The Composer web application lives in the following directory:

- C:\Program Files (x86)\AMX\Inspired Signage\Composer Server\Default\Web

  Note, if you have a 32 bit version of Windows Server 2008 then the directory will be C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web

The Post Office web application lives in the following directories:

- C:\Program Files (x86)\AMX \Inspired Signage\Composer Server\Default\PostOffice\WebApp

  Note, if you have a 32 bit version of Windows Server 2008 then the directory will be C:\Program Files\AMX\Inspired Signage\Composer Server\Default\PostOffice\WebApp
- C:\Program Files (x86)\AMX\Inspired Signage\Composer Server\Default\PostOffice\WebService

  Note, if you have a 32 bit version of Windows Server 2008 then the directory will be C:\Program Files\AMX\Inspired Signage\Composer Server\Default\PostOffice\WebService

Set the correct folder permissions for the three folders listed above. The IIS user group needs to have access to these folders to be able to host them.

The process is as follows:

1. Right click on the first folder in the list above, select Properties and then select the ,Security tab
2. Click *Edit*, then *Add* and type IIS into the object names box and click *Check Names*
3. This should find the correct user group for your machine, click *OK* to continue, you should now see the IIS user group in the list of user groups and accounts under the security tab:
4. Select the IIS user group and set the folder permissions Modify, Read & Execute, List folder contents, Read, and Write.
5. Repeat this process for all three of the folders

Shutdown the AMX Webserver

Now, shutdown the AMX Web server:

1. Select *Start* > *Run* and enter **services.msc** to bring up a list of all windows services
2. Select AMX Web Server-Default and click *Stop the Service*
3. Now you need to disable the service. Right click *AMX Web Server- Default* and select properties. Select **Disabled** from the Startup Properties drop down.

Install IIS

Install IIS as follows:

1. Click *Start* > *All Programs* > *Administrative Tools* > *Server Manager*
2. In the Server Manager window, scroll down to Roles Summary, and then click *Add Roles*. The Add Roles Wizard will start with a Before You Begin page.
3. Check that your installation complies with these prerequisites
4. Select Web Server (IIS) on the Select Server Roles page. An introductory page will open with links for further information.
5. In the Select Role Services window, set the **ASP.NET** checkbox
6. The Add Roles Wizard will popup, click *Add Required Role Services*
7. Click *Next* to Continue
8. Finally, click *Install* to carry out the installation.

Register IIS

Register IIS as follows:

1. Ensure that you have installed Microsoft .NET 4 or higher, then run the following command from the command line:
2. ASPNET_REGIIS.EXE -i located in C:\WINDOWS\Microsoft.NET\Framework\v4.0.30319 (Note version nunber may be higher depending on .NET version)

IIS Setup

Open Internet Information Services (IIS) Manager, select **Start > Run** and enter **inetmgr**

Create Application Pools

Create two application pools, named Composer and Post Office as follows:

1. Expand your server, underneath Start Page by clicking the + symbol beside your machine name
2. Right click on Applications Pools
3. Select **Add Application Pool**
4. Enter the Application Pool Name (Composer or Post Office) as appropriate
5. Keep all other settings at their default values.

Modify **both** application pools as follows:

1. Left click Application Pools
2. Left click the Composer Application Pool or Post Office Application Pools as appropriate
3. Click **Advanced Settings** in the right hand actions pane
4. In the General section of the Advanced Settings window, click on the column to the right of .NET Framework Version and select the latest version from the drop down menu.
5. in the General section of the Advanced Settings window, select **Enable 32-Bit Applications** and set this setting to True. (only necessary for Windows Server 2008 64 bit)
6. find the Identity setting in the Process Model section

   If you have a local SQL Server database:

   Change the identity setting to Built-in account and select LocalSystem from the drop down menu.

   If you are doing an installation with a remote SQL Server database:

   Change the identity setting to a Custom account. Enter the username of the account used to install Composer in the format **domain name\username**. Enter the account password

Create Websites

Next create a Website for the Composer component as follows:

1. Right click on Sites and select **Add Website**
2. Enter the text **Composer** for the Site name
3. Click **Select** and choose the Composer Application Pool from the list of Application Pools
4. Choose a port number for the Composer website (choose 8080 by default) make a note of the port for future reference. Enter the chosen port number in the port field.
5. Select the Website path, choose C:\Program Files (x86)\AMX\Inspired Signage\Composer Server\Default\Web

Create a Website for the Post Office component as follows:

1. Right click on Sites and select **Add Website**
2. Enter the text **Post Office** for the Site name
3. Click **Select** and choose the Post Office Application Pool from the list of Application Pools
4. Choose a port number for the Post Office Website (choose 8090 by default) make a note of the port for future reference. Enter the chosen port number in the port field.
5. Select the Website path, choose C:\Program Files (x86)\AMX\Inspired Signage\Composer Server\Default\PostOffice

Change the Composer Website Properties

1. Left click on the Composer Website
2. Click the logging icon and select disable in the right hand menu to disable logging
3. Click the Default Document icon, remove all the documents, and then add the document **ComposerShell.aspx**

Change the Post Office Website Properties

1. Left click on the Post Office Website
2. Click the logging icon and select disable in the right hand menu to disable logging

Setting up the Post Office Web Application

Post Office as well as Composer needs to be exposed by IIS by adding two virtual directories under the Post Office website (created earlier):

- ISPostOfficeMonitorWebApplication (path C:\Program Files (x86)\AMX\Inspired Signage\Composer Server\Default\PostOffice\WebApp)
- ISPostOfficeWebServices (path C:\Program Files (x86)\AMX\Inspired Signage\Composer Server\Default\PostOffice\WebService)

Create a virtual directory as follows:

1. Right click on the Post Office website and select add virtual directory
2. Enter a name (alias) for the virtual directory in this case ISPostOfficeMonitorWebApplication
3. Select a path for the virtual directory in this case C:\Program Files (x86)\AMX\Inspired Signage\Composer Server\Default\PostOffice\WebApp
4. Click *OK* to create the virtual directory
5. Select the newly created virtual directory
6. Right click and select **Convert to Application**
7. Select the Post Office Application pool
8. Click *OK* to finish

Create a second virtual directory as follows:

1. Right click on the Post Office website and select add virtual directory
2. Enter a name (alias) for the virtual directory in this case ISPostOfficeWebServices
3. Select a path for the virtual directory in this case C:\Program Files (x86)\AMX\Inspired Signage\Composer Server\Default\PostOffice\WebService
4. Click *OK* to create the virtual directory
5. Select the newly created virtual directory
6. Right click and select **Convert to Application**
7. Select the Post Office Application pool
8. Click *OK* to finish

Create SQL Server Logins

Note, this step is not required if you are carrying out a remote SQL Server installation.

Create an SQL Server Login In Microsoft SQL Server Management Studio as follows:

1. Connect to the Database Engine using Windows Authentication
2. Right click Security in the object explorer pane
3. Select **New > Login**
4. Enter IIS APPPOOL\Composer in the Login Name field
5. Set Windows authentication
6. Select the AMXComposerDatabase as the default database using the drop down menu
7. Select Server Role in the select a page pane
8. Set the public check box
9. Select User Mapping in the select a page pane
10. Set the Map checkbox beside the AMXComposerDatabase database
11. In the database role membership pane check that only the following roles are enabled: db_datareader, db_datawriter, and public
12. Note you may get an error message drop member failed for database role db_owner, OK this error and then click Cancel. You should still see that a new login IIS APPPOOL\Composer appears in the list of the logins under Security in the Object Explorer pane

Repeat the process detailed above but this time enter IIS APPPOOL\Post Office in the Login Name field and select PostOfficeSever DB as the database in steps 6 and 10

Modify the Web Config File

Locate the Web.Config file in C:\Program Files (x86)\AMX\Inspired Signage\Composer Server\Default\Web and search for PostOfficePort in this file.

The relevant section should be as follows:

<setting name="PostOfficePort" serializeAs="String">

<value>5141</value>

</setting>

Change the port value from 5141 to 8090 or whatever port you used to setup the Post Office

Allow Access to Temporary Folders

You need to allow full control to two users of your system "Network Service " and "YourComputerName\IIS_IUSRS ".

The process is as follows:

1. Right click and select properties on the following folders:

   C:\Windows\Temp and C:\Windows\Microsoft.NET\Framework\v4.0.30319\Temporary ASP.NET Files

   Note, change the version number to match the latest version of the .NET framework installed on your machine. You will also need to use Framework64 on a 64 bit version of Windows Server 2008
2. Go to the Security tab, click *Edit* then *Add* and add "Network Service" and "YourComputerName\IIS_IUSRS".
3. In the Permission checkbox set Full Control.
4. Click *Apply* and *OK*.

Configure Post Office to work with a Remote Database

Configure Post Office to work with a remote database as follows:

1. Select **Start > Run** and enter services.msc
2. Select AMX IS Post Office Worker Service-Default
3. Stop this service
4. Right-click and select Properties on this service
5. Choose Log On
6. Enter the username of the account used to install Composer in the format domain name\username
7. Enter the account password
8. Start the AMX IS Post Office Worker Service-Default service

Restart IIS

Now restart the IIS service as follows

1. Select **Start > Run**
2. type services.msc to launch the services dialogue
3. select world wide web publishing service
4. click *Restart*

Test the Setup

To check Composer is setup correctly enter the following in a web browser: http://(machine name):8080

If you chose a different port for Composer then use this port instead of 8080.

If Composer is correctly setup then a Composer login will appear. If there is a problem check each step of the IIS configuration, paying particular attention to the Composer sections.To open the Post Office web application page use the following URLs:

- http://(machine name):8090/ ISPostOfficeMonitorWebApplication/Manager.aspx

  and
- http://(machine name):8090/ ISPostOfficeMonitorWebApplication/Viewer.aspx

Replace 8090 with your Post Office port if you chose a different port number. Check that you can access both of these URLs correctly, if there is a problem check each step of the IIS configuration, paying particular attention to the Post Office sections.

Modify the Composer Shortcut

Modify the Composer Shortcut as follows:

1. Select **Start > All Programs > AMX Inspired Signage**
2. Right click on Composer
3. Select Properties
4. Replace the current contents of the URL field with http://localhost:8080/ComposerShell.aspx. Replace 8080 with your Composer port number if you have chosen a different port. Note that the user documentation gives the Composer URL as http://<hostname>:<port>/ComposerWeb/ComposerShell.aspx. You may wish to create a virtual directory so that the URL used to access Composer is consistent with the user documentation.

Appendix A - Clean Composer Install on a Machine which had a previous Installation

By default when Composer is uninstalled from a machine both the database and the media files are kept on that machine. If for some reason a fresh installation is needed then a number of items need to be deleted from the installation machine. The process is as follows:

1. Uninstall the old version of Composer (if still on the machine)
2. Delete the databases. If using SQL Management Studio. find AMXComposerDatabase and Post-OfficeDatabase and delete them. If you haven't got SQL Management Studio installed you can drop the database by using the command line as follows:
    a. Open a command prompt (start... run... type cmd in the run dialog)
    b. Type. sqlcmd –S localhost\SQLEXPRESS <enter>
    c. Type. USE [master] <enter>
    d. Type. GO <enter>
    e. Type. DROP DATABASE AMXComposerDatabase <enter>
    f. Type. GO <enter>
3. Delete the contents of the directory:
   C:\Program Files\AMX\Inspired Signage\Composer Server\Default
4. Install the new version of Composer using the instructions in this guide.

Appendix B - Transfer an Installation of Composer to another Machine

Sometimes you may want to set up a system on one machine then move it to a permanent hosting machine. This will require you to move both the database and the data files from one machine to another. **Note it is very important that both the source and destination machines have exactly the same version of composer installed.**

Carry out the following steps on the source machine:

1. Stop the AMX Web Server or IIS depending on the installation. This will ensure that no changes are made to the database when transferring the data.

   The process for stopping the "AMX webserver" is as follows - Go to **Control Panel > Administrative Tools > Services** , select AMX Web Server-Default and click *Stop the Service*

   The process for IIS depends on your version of windows. Consult the IIS documentation.
2. Locate the Composer database in the following directory:

   Windows XP and Windows 2003

   C:\Documents and Settings\All Users\Application Data\Amx\Inspired Signage\Composer Server\Default

   Windows Vista, Windows 2008 server, Windows 7

   C:\ProgramData\AMX\Inspired Signage\Composer Server\Default

   The database files we are interested in are AMXComposerDatabase.mdf and AMXComposerDatabase_log.ldf.
3. Copy the contents of the following directories to a temporary location ready for transfer to the destination machine:

   Media Files - C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web\DataFiles

   Template Guide Images - C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web\LocalPreviewFolder

   Imported Template Packs - C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web\TpkFiles

Carry out the following steps on the destination machine:

1. Install Composer if not already installed. As stated earlier this must be exactly the same version as Composer from the source machine.
2. Stop the AMX web server or IIS depending on installation type:

   The process for stopping the "AMX webserver" as follows - Go to **Control Panel > Administrative Tools > Services** , select AMX Web Server-Default and click *Stop the Service*

   The process for IIS depends on your version of windows. Consult the IIS documentation.
3. Drop the installation database. This can be done in SQL management studio or using the command line as follows:
   a. Open a command prompt (start... run... type cmd in the run dialog)
   b. Type. sqlcmd –S localhost\SQLEXPRESS <enter>
   c. Type. USE [master] <enter>
   d. Type. GO <enter>

e. Type. DROP DATABASE AMXComposerDatabase <enter>
f. Type. GO <enter>

4. Copy the database files from the source machine to the destination machine. Note the folder that these files get copied to should have the necessary user rights so that SQL Server can see and modify them. It is recommended you use the directories that a default installation uses i.e.

   Windows XP and Windows 2003

   C:\Documents and Settings\All Users\Application Data\Amx\Inspired Signage\Composer Server\Default

   Windows Vista, Windows 2008 Server, Windows 7.

   C:\ProgramData\AMX\Inspired Signage\Composer Server\Default

5. Attach the database. This can be done in SQL management studio or by using the command line as follows:
   a. Open a command prompt (Click start, select run, and type cmd in the run dialog)
   b. Type. sqlcmd –S localhost\SQLEXPRESS <enter>
   c. Type. USE [master] <enter>
   d. Type. GO <enter>
   e. Type. (Note, change the copy location depending on where you copied the database files)
      CREATE DATABASE [AMXComposerDatabase] ON <enter>
      (FILENAME = N'C:\<copy location>\AMXComposerDatabase.mdf'), <enter>
      (FILENAME = N'C:\<copy location>\AMXComposerDatabase_log.ldf') <enter>
      FOR ATTACH; <enter>
   f. Type GO <enter>
   g. To verify that the database is attached. Type. select name from sys.databases then GO <enter>. You should now see AMXComposerDatabase in the list.
6. Move the files in the following folders from the source machine to the destination machine:

   C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web\DataFiles

   C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web\LocalPreviewFolder

   C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web\TpkFiles

7. Restart the AMX Web Server or IIS depending on the installation:

   The process for restarting the "AMX webserver" is as follows - Go to **Control Panel > Administrative Tools > Services** , select AMX Web Server-Default and click *Start the Service*

   The process for IIS depends on your version of windows. Consult the IIS documentation.

Appendix C - Backing up Composer

The backup procedure is exactly the same as the procedure for moving an installation to another machine except the destination machine is the same as the source machine when restoring the data.

Note when restoring a backup the version of Composer must be the same as that used when the backup was created.

The process is as follows:

1. Stop the AMX Web Server or IIS depending on the installation. This will ensure that no changes are made to the database when backing up the data.

   The process for stopping the "AMX webserver" is as follows - Go to **Control Panel > Administrative Tools > Services** , select AMX Web Server-Default and click *Stop the Service*

   The process for IIS depends on your version of windows. Consult the IIS documentation.
2. Locate the Composer database:

   Windows XP and Windows 2003

   C:\Documents and Settings\All Users\Application Data\Amx\Inspired Signage\Composer Server\Default

   Windows Vista, Windows 2008 Server, Windows 7.

   C:\ProgramData\AMX\Inspired Signage\Composer Server\Default

   Windows XP and Windows 2003
3. Copy the database files AMXComposerDatabase.mdf and AMXComposerDatabase_log.ldf to a safe location.
4. Copy the folders to a safe location.

   C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web\DataFiles

   C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web\LocalPreviewFolder

   C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web\TpkFiles
5. Zip up the database files and the copied folders. It is recommended you add the version of Composer to the name of the zip file. For example ComposerBackup21_1_2010_ComposerV4_4_47_617.zip this will give an indication of what version of composer the backup was taken from... and hence what version of Composer you can restore the data to.
6. To restore the backup use the exact procedure for moving an installation of Composer to another machine, see Appendix B - Transfer an Installation of Composer to another Machine on page 42 for more details,
7. Restart the AMX Web Server or IIS depending on the installation

   The process for restarting the "AMX webserver" is as follows - Go to **Control Panel > Administrative Tools > Services** , select AMX Web Server-Default and click *Start the Service*

   The process for IIS depends on your version of windows. Consult the IIS documentation.

Appendix D - Configuring Composer to Use Another Location for Data Storage

This appendix explains how to configure Composer to use a location other than the C drive for uploaded files such as Images, Template Packs, and Videos. The xml configuration file Web.config contains a number of settings that determine where these uploaded files are stored, these settings are listed below. The path for this file is C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web\Web.config

DataFilePath

<setting name="DataFilePath" serializeAs="String">
<value />
</setting>

This setting tells Composer where to find the media files that are uploaded by the user or imported with a TPK (template pack). If this value is blank (the default value) it will use a default directory that is located under the Composer Web application. If this directory is changed , the contents of the directory must also be copied to the new location.

TpkFilePath

<setting name="TpkFilePath" serializeAs="String">
<value />
</setting>

This setting tells Composer where to find the TPK files that are uploaded by the user. If this value is blank (the default value) it will use a default directory that is located under the composer web application. If this directory is changed, the contents of the directory must also be copied to the new location.

UploadPath

<setting name="UploadPath" serializeAs="String">
<value />
</setting>

This setting tells Composer where all partially uploaded files should reside. If this value is blank (the default value) it will use a default directory that is located under the Composer Web application.

UnzipPath

<setting name="UnzipPath" serializeAs="String">
<value />
</setting>

This setting tells Composer where all unzip operations can be performed. If this value is blank (the default value) it will use a default directory that is located under the composer web application.

Example - Changing the Data Path to Another Local Drive

To change the location used to store uploaded media files to D:\Datafiles:

1. Stop the Composer Web Server (either IIS or the Cassini web server)

   The process for stopping the "AMX webserver" is as follows - Go to **Control Panel > Administrative Tools > Services** , select AMX Web Server-Default and click *Stop the Service*

   The process for IIS depends on your version of windows. Consult the IIS documentation.
2. Open the Web.config file. The path for this file is C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web\Web.config
3. Edit the DataFilePath setting

   <setting name="DataFilePath" serializeAs="String">

   <value>D:\DataFiles</value>

   </setting>
4. Move the contents of C:\Program Files (x86)\AMX\Inspired Signage\Composer Server\D-efault\Web\DataFiles to D:\Datafiles
5. Restart the Composer Web Server.

Setting up Composer to use a Network Location for Data Storage

You can also configure Composer to store files in a network location, for example:

- A mapped network drive e.g. a network location mapped to z:\
- A network address e.g. \\london-nas01\datafiles
- An ip network address e.g \\192.168.80.13\datafiles

It is often the case that network storage locations are configured so that only certain people can access them, as Composer is a windows service run as a system user you may find accessing networked drives causes problem.

Verification Process

To confirm that the new data directory is working and that there are no issues with access rights, edit a Message in Composer with an image property. Pick an image that you have not used before in Composer and save the changed Message. The image file should appear in the data directory. **Note** it will not have the same filename as Composer will give the image a GUID (unique) as a filename. Also note that if you upload the same image but with a different filename Composer will know this is the same image and not put this file in the data directory.

Appendix E - Uninstalling Composer

The following instructions describe how to uninstall Composer on Windows XP. You will need to modify them as appropriate for different Windows Operating Systems.

1. Select **Start > Control Panel > Add or Remove Programs**
2. Click *Change or Remove Programs*
3. Select Composer
4. Click *Remove*

Uninstalling Composer does not remove the AMX License Manager (as this may be required for other AMX products on the same system). To uninstall the License Manager:

1. Select **Start > Control Panel > Add or Remove Programs**
2. Click *Change or Remove Programs*
3. Select AMX License Manager
4. Click *Remove*

Appendix F - Network Security

This section describes the network ports used by the Inspired Signage Solution.

The following table lists the ports used by Composer Server:

Composer Server Ports		
Port	**Port Type (Static/Configurable)**	**Description**
16754	Configurable See Setting PreviewPort in Web.config file. You will also need to modify this file and setting on the remote machine as well as the machine hosting Composer	Composer uses this port to connect to Preview (note Preview component can be on a remote machine)
1433	Configurable See MS SQL Server documentation	Composer uses this port to connect to SQL Server (note SQL Server can be installed on a remote machine)
5143	Configurable, see section on using IIS Web Server	Composer web application port
21	Static	FTP port, used for outgoing publish operations to Players

Note Web.config refers to the file C:\Program Files\AMX\Inspired Signage\Composer Server\Default\Web\Web.config

The following table lists the ports used by the Player component:

Player Ports		
Port	**Port Type**	**Description**
21	Static	Ftp used for Publishing
80	Static	Used for Player web configuration tool
5900	Static	VNC
25050	Static	Player port used for remote screen-shot, getting/setting public variables for control over displayed content, Player status monitor service
25002	Static	Control devices attached to Player serial port

Appendix G - Installation Troubleshooting

If the installation process fails then you can run the installer from the command line to generate a log file as follows:

ComposerServer.exe -log c:\myLogFile.log

Note the path to the log file has to be a full path.

This produces two log files:

- myLogFile.log
- myLogFile_0_Composer.log

Send these log files to AMX technical support for assistance.